UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/743,358	ZIMLER ET AL.
	Examiner	Art Unit	
	JUVENA LOO	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 June 2008</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-16</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-16</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by Prakash (US

2002/0097727 A1).

        Regarding claim 16, *a method of providing communications services, comprising:*

receiving a request for communications service (Prakash: see Figure 2B and "As

illustrated in FIG. 2B...the contents requested by individual viewing location" in page 3,

section 0038);

        downloading media content in response to the requested communications

service (Prakash: see Figure 1A and "FIG. 1A illustrates the...able to reconstruct the

data" in page 1, section 0016 through page 2, section 0017; see also "The transmitting

location...resume normal rate of data transmission" in page 2, section 0021 through

page 3, section 0037);

        when the requested communications service exceeds an available bandwidth of

a first physical medium, then temporarily logically bonding a second physical medium to

provide additional bandwidth (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041);

downloading the media content via the first physical medium and the temporarily logically bonded second physical medium (Prakash: see Figure 1A and "FIG. 1A illustrates the...able to reconstruct the data" in page 1, section 0016 through page 2, section 0017; see also "The transmitting location...resume normal rate of data transmission" in page 2, section 0021 through page 3, section 0037; see also Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041); and

when the additional bandwidth is no longer needed, reverting the second physical medium to a shared configuration, thus allowing another requestor to receive increased bandwidth when required (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 6, and 8 - 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Counterman (US 2002/0136240 A1) in view of Prakash (US 2002/0097727 A1).

Counterman discloses a method and apparatus for service comprising:

Regarding claim 1, *a method of providing communications services* (Counterman: see "A method and apparatus...working portion of the shared line" in Abstract), *comprising:*

logically bonding a first physical medium to a subscriber's premise (Counterman: see Figure 8, 238 to customer premise 2; see also "A specific application...at the customer premises itself" in page 3, sections 0029 - 0032);

connecting a second physical medium to the subscriber's premise (Counterman: see Figure 8, 236 to customer premise 2; see also "A specific application...at the customer premises itself" in page 3, sections 0029 - 0032);

connecting the second physical medium to another subscriber's premise (Counterman: see Figure 8, 230 to customer premise 1; see also "A specific application...at the customer premises itself" in page 3, sections 0029 - 0032);

sharing the second physical medium amongst the subscriber's premise and the another subscribers' premise (Counterman: see Figure 8, One Metallic Pair 228, 238 to customer premise 2 and 230 to customer premise 1; see also "A specific application...at the customer premises itself" in page 3, sections 0029 - 0032).

Counterman does not explicitly disclose the features comprising:

receiving a request for communications service from the subscriber's premise;

when the requested communication service exceeds an available bandwidth of the first physical medium, then temporarily logically bonding the second physical medium to the subscriber's premise to provide additional bandwidth, such that first physical medium and the second physical medium share a session of information;

providing the requested communications service via the logically bonded first physical medium and the temporarily logically bonded second physical medium;

when the additional bandwidth is no longer needed, removing the temporary logical bonding of the second physical medium; and

reverting the second physical medium to its shared configuration, thus allowing the another subscriber to receive increased bandwidth when required.

Prakash discloses the utilization of an non-QOS guaranteed network within a communication network to increase bandwidth when necessary comprising:

receiving a request for communications service from the subscriber's premise (Prakash: see Figure 2B and "As illustrated in FIG. 2B...the contents requested by individual viewing location" in page 3, section 0038);

when the requested communication service exceeds an available bandwidth of the first physical medium, then temporarily logically bonding the second physical

medium to the subscriber's premise to provide additional bandwidth, such that first physical medium and the second physical medium share a session of information (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B…by the receiving stream manager" in page 3, sections 0038 – 0041);

providing the requested communications service via the logically bonded first physical medium and the temporarily logically bonded second physical medium (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B…by the receiving stream manager" in page 3, sections 0038 – 0041); and

when the additional bandwidth is no longer needed, removing the temporary logical bonding of the second physical medium (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B…by the receiving stream manager" in page 3, sections 0038 – 0041); *and*

reverting the second physical medium to its shared configuration, thus allowing the another subscriber to receive increased bandwidth when required (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B…by the receiving stream manager" in page 3, sections 0038 – 0041).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Counterman by using the features, as taught by Prakash, in order to utilizes additional network connections when necessary to increase bandwidth (Prakash: see page 1, section 0003).

Regarding claim 6, *further comprising temporarily logically bonding additional physical media, each additional physical media dynamically shared to provide additional bandwidth* (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041; Counterman: see Figure 8; see also "A specific application...at the customer premises itself" in page 3, sections 0029 - 0032).

Regarding claim 8, *further comprising temporarily logically bonding n physical media, such that first physical medium and the n physical media share the same session of information* (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041; Counterman: see Figure 8; see also "A specific application...at the customer premises itself" in page 3, sections 0029 - 0032).

Regarding claim 9, *a method of providing communications services, comprising*:

configuring a first twisted pair to provide Digital Subscriber Line service to a subscriber's premise (Counterman: see Figure 8, 238 to customer premise 2; see also "A specific application...at the customer premises itself" in page 3, sections 0029 - 0032);

configuring a second twisted pair for shared Digital Subscriber Line service, amongst the subscriber's premise and another subscriber's premise (Counterman: see Figure 8, 236 to customer premise 2; see also "A specific application...at the customer

premises itself" in page 3, sections 0029 – 0032; see also Figure 9, Distribution Network, 322, 330, 336);

transmitting digital subscriber line signals to the subscriber's premise via the first twisted pair (Counterman: see Figure 8, 238 to customer premise 2; see also "A specific application...at the customer premises itself" in page 3, sections 0029 - 0032);

However, Counterman does not disclose the features: *receiving a request for communications service; when the requested communications service exceeds an available bandwidth of the first twisted pair, then temporarily logically bonding the second twisted pair to the destination to provide additional bandwidth; providing the requested communications service via the logically bonded first twisted pair and the temporarily logically bonded second twisted pair; when the additional bandwidth is not needed, removing the temporary logical bonding of the second twisted pair; and reverting the second twisted pair to its shared configuration, thus allowing the another subscriber's premise to receive increased bandwidth when required.*

Prakash discloses the utilization of an non-QOS guaranteed network within a communication network to increase bandwidth when necessary comprising:

receiving a request for communications service (Prakash: see Figure 2B and "As illustrated in FIG. 2B...the contents requested by individual viewing location" in page 3, section 0038);

when the requested communications service exceeds an available bandwidth of the first twisted pair, then temporarily logically bonding the second twisted pair to the subscriber's premise to provide additional bandwidth (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041);

providing the requested communications service via the logically bonded first twisted pair and the temporarily logically bonded second twisted pair (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041); *and*

when the additional bandwidth is not needed, removing the temporary logical bonding of the second twisted pair (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041); and

reverting the second twisted pair to its shared configuration, thus allowing the another subscriber's premise to receive increased bandwidth when required (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Counterman by using the features, as taught by Prakash, in order to utilizes additional network connections when necessary to increase bandwidth (Prakash: see page 1, section 0003).

Regarding claim 10, *further comprising sharing the same session of information* (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041).

Regarding claim 11, *further comprising connecting the second twisted pair and the first twisted pair to the subscriber's premise, such that first twisted pair and the second twisted pair share the same session of information* (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041; Counterman: Figure 8, 238 and 236; see also Figure 9, 322; see also "A specific application of the concept...share the same line" in pages 3 – 4, sections 0029 - 0038).

Regarding claim 12, *further comprising transmitting the digital subscriber line signals to the subscriber's premise via a third twisted pair, the third twisted pair shared amongst the subscriber's premise and the another subscriber's premise, the third twisted pair providing more additional bandwidth* (Counterman: Figure 8, 238 and 236; see also Figure 9, 322; see also "A specific application of the concept...share the same line" in pages 3 – 4, sections 0029 - 0038).

Regarding claim 13, *further comprising instructing a network device to logically bond the second twisted pair and the first twisted pair when transmitting the digital*

subscriber line signals to the subscriber's premise, such that first twisted pair and the second twisted pair share the same session of information (Prakash: see Figure 2B, Figure 3B and Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3, sections 0038 – 0041; Counterman: Figure 8, 238 and 236; see also Figure 9, 322; see also "A specific application of the concept...share the same line" in pages 3 – 4, sections 0029 - 0038).

Regarding claim 14, *further comprising logically bonding n twisted pairs to the first twisted pair when transmitting the digital subscriber line signals to the subscriber's premise, such that first twisted pair and the n twisted pairs share the same session of information* (Counterman: Figure 8, 238 and 236; see also Figure 9, 322; see also "A specific application of the concept...share the same line" in pages 3 – 4, sections 0029 - 0038).

Regarding claim 15, *A method of providing communications services* (Counterman: see "A method and apparatus...working portion of the shared line" in Abstract), *comprising:*

logically bonding a first physical medium to the client communications device (Counterman: see Figure 8, 238 to customer premise 2; see also "A specific application...at the customer premises itself" in page 3, sections 0029 - 0032);

temporarily logically bonding a second physical medium to the client communications device (Counterman: see Figure 8, 236 to customer premise 2; see

also "A specific application...at the customer premises itself" in page 3, sections 0029 -

0032), *the second physical medium being dynamically shared amongst multiple client*

communications devices to provide additional bandwidth when required (Counterman:

see Figure 8, One Metallic Pair 228, 238 to customer premise 2 and 230 to customer

premise 1; see also "A specific application...at the customer premises itself" in page 3,

sections 0029 - 0032);

Counterman does not explicitly disclose the features comprising:

receiving a request for communications services from a client communications

device;

providing the communications services via the logically bonded first physical

medium and the second physical medium;

when the additional bandwidth is no longer needed, reverting the second

physical medium to its shared configuration, thus allowing another customer to receive

increased bandwidth when required.

Prakash discloses the utilization of an non-QOS guaranteed network within a

communication network to increase bandwidth when necessary comprising:

receiving a request for communications services from a client communications

device (Prakash: see Figure 2B and "As illustrated in FIG. 2B...the contents requested

by individual viewing location" in page 3, section 0038);

providing the communications services via the logically bonded first physical

medium and the second physical medium (Prakash: see Figure 2B, Figure 3B and

Figure 3C; see also "As illustrated in FIG. 2B...by the receiving stream manager" in

page 3, sections 0038 – 0041); *and*

when the additional bandwidth is no longer needed, reverting the second

physical medium to its shared configuration, thus allowing another customer to receive

increased bandwidth when required (Prakash: see Figure 2B, Figure 3B and Figure 3C;

see also "As illustrated in FIG. 2B...by the receiving stream manager" in page 3,

sections 0038 – 0041).

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to modify the system of Counterman by using the features, as taught by

Prakash, in order to utilizes additional network connections when necessary to increase

bandwidth (Prakash: see page 1, section 0003).

5.   Claims 2-5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Counterman (US 2002/0136240 A1) in view of Prakash (US 2002/0097727 A1)

and further in view of Gerszberg et al. (US 6,452,923 B1).

Countermand and Prakash disclose the claimed limitations in paragraph 2 above.

Counterman and Prakash do not explicitly disclose the following features: regarding

claim 2, wherein logically bonding the first physical medium comprises logically bonding

a twisted pair; regarding claim 3, wherein logically bonding the first physical medium comprises logically bonding a coaxial cable; regarding claim 4, wherein logically bonding the first physical medium comprises logically bonding a fiber optic cable; regarding claim 5, wherein providing the requested communications service comprises transmitting signals via at least one of i) a combination of a twisted pair and a coaxial cable, ii) a combination of a twisted pair and a fiber optic cable, and iii) a combination of a coaxial cable and a fiber optic cable; regarding claim 7, providing the requested communications service comprises transmitting signals via a shared twisted pair.

Gerszberg et al. discloses a twisted pair and/or coaxial cable fed, integrated residence gateway controlled set-top device comprising the following features:

Regarding claim 2, *wherein logically bonding the first physical medium comprises logically bonding a twisted pair* (Gerszberg: see Figure 12, 620 and "the NIU 600 may...twisted pair cabling" in column 22, lines 49 – 62).

Regarding claim 3, *wherein logically bonding the first physical medium comprises logically bonding a coaxial cable* (Gerszberg: see Figure 12, 630 and "a cable 630...set-top and/or a TV 514).

Regarding claim 4, *wherein logically bonding the first physical medium comprises logically bonding a fiber optic cable* (Gerszberg: see Figure 1E, Fiber Access).

Regarding claim 5, *wherein providing the requested communications service comprises transmitting signals via at least one of i) a combination of a twisted pair and a coaxial cable, ii) a combination of a twisted pair and a fiber optic cable, and iii) a combination of a coaxial cable and a fiber optic cable* (Gerszberg: see Figure 1E and Figure 12).

Regarding claim 7, *providing the requested communications service comprises transmitting signals via a shared twisted pair* (Gerszberg: see Figure 1E and Figure 10).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Counterman with Prakash by using the features, as taught by Gerszberg et al., in order to integrated services to customer devices (Gerszberg: see Abstract).

Response to Arguments

6.   Applicant's arguments filed June 06, 2008 with respect to claims 1 - 16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUVENA LOO whose telephone number is (571)270-1974. The examiner can normally be reached on Monday - Friday: 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JUVENA LOO/
Examiner
Art Unit 2616
July 28, 2008

/Kwang B. Yao/

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